

**REMARKS**

The Office Action of July 2, 2008 required an election under 35 U.S.C. § 121 from among the following:

- I. Claims 1, 7, and 9, drawn to (i) a ssDNA molecule having a sequence according to Figure 11 and (ii) a ssDNA molecule that is at least 90% homologous to (i), but which differs by at least one nucleotide, and variants or mutants thereof, and a vector having the DNA sequence;
- II. Claims 1, 7, and 9, drawn to a ssDNA molecule that is homologous to the molecule of Group I, and variants or mutants thereof, and a vector having the DNA sequence;
- III. Claims 2 and 33, drawn to a dsDNA molecule comprising the ssDNA of claim 1 and a strand complementary thereto as well as variants or mutants thereof;
- IV-XXIX. Claim 3, parts (i)-(xxvi), respectively, drawn to a ssDNA molecule according to parts (i)-(xxvi) of claim 3, respectively;
- XXX. Claim 4, drawn to a dsDNA molecule comprising a ssDNA molecule of claim 3 and a strand complementary thereto;
- XXXI-LXIII. Claim 5, parts (i)-(xxxiii), respectively, drawn to a ssDNA molecule selected from one of parts (i)-(xxxiii), respectively;
- LXIV. Claim 6, drawn to a dsDNA molecule comprising a ssDNA molecule of claim 5 and a strand complementary thereto;
- LXV. Claims 8, 10, and 11, drawn to an RNA corresponding to a sequence according to claim 1 and the cells of claims 10 and 11;
- LXVI. Claims 12 and 13, drawn to use of the sequence of claim 8;
- LXVII. Claim 14, drawn to an expression product of a DNA molecule of claim 1;
- LXVIII. Claims 15-18, 24, 25, 29, and 34, drawn to a polynucleotide comprising SEQ ID NO: 1 or fragment thereof, a vector comprising the polynucleotide, a cell comprising the vector, a pharmaceutical composition comprising the polynucleotide, and a kit comprising the polynucleotide;
- LXIX. Claims 15-18, 24, 25, 29, and 34, drawn to a polynucleotide comprising SEQ ID NO: 18 or fragment thereof, a vector comprising the polynucleotide, a cell comprising the vector, a

pharmaceutical composition comprising the polynucleotide, and a kit comprising the polynucleotide;

- LXX. Claims 15-18, 24, 25, 29, and 34, drawn to a polynucleotide comprising SEQ ID NO: 33 or fragment thereof, a vector comprising the polynucleotide, a cell comprising the vector, a pharmaceutical composition comprising the polynucleotide, and a kit comprising the polynucleotide;
- LXXI. Claims 15-18, 24, 25, 29, and 34, drawn to a polynucleotide comprising SEQ ID NO: 36 or fragment thereof, a vector comprising the polynucleotide, a cell comprising the vector, a pharmaceutical composition comprising the polynucleotide, and a kit comprising the polynucleotide;
- LXXII-CVI. Claims 19, 24, and 25, drawn to the polypeptide defined in SEQ ID NOS: 2-17, 19-32, 34, 35, 37, and 38 (including fragments/derivatives thereof), respectively, as well as a pharmaceutical composition comprising the polynucleotide;
- CVII-CXLV. Claims 21-23, drawn to the use of the polynucleotide of SEQ ID NOS: 1, 18, 33, or 36 or the polypeptide of SEQ ID NOS: 2-17, 19-32, 34, 35, 37, and 38 (including fragments/derivatives thereof), respectively;
- CXLVI-CLXXXIV. Claims 26 and 27, drawn to a method of producing protein comprising expressing any one of SEQ ID NOS: 1, 18, 33, 36, 2-17, 19-32, 34, 35, 37, and 38
- CLXXXV-CLXXXIX. Claim 28, drawn to a method of identifying genes which are involved in the biosynthesis of tubulysins comprising the steps of hybridization of SEQ ID NOS: 1, 18, 33, 36 (and fragments thereof) with nucleic acid of a species that is not *Angiococcus disciformis* and isolating and characterizing the hybridized nucleic acid;
- CXC-CCVVIV. Claims 30-32, drawn to use of polypeptide of SEQ ID NOS: 2-17, 19-32, 34, 35, 37, and 38 (and biologically active fragments/derivatives thereof) as a disinfectant.

Group I, claims 1, 7, and 9, is elected with traverse for further prosecution in this application. Applicants reserve the right to file divisional applications to non-elected subject matter.

The Office Action also required election of a species of cells as indicated in claim 11. In response, Applicants elect Myxobacteria, with traverse. This elected species is encompassed in claims 1, 7, and 9.

The Office Action further required an election of a species of pathogenic infections as indicated in claim 23. Applicants elect mycosis, with traverse. This elected species is encompassed in claims 1, 7, and 9.

As a traverse, Applicants assert that the Groups I-CCVVIV relate to a single inventive concept under PCT Rule 13.1, and that this inventive concept is a technical feature that defines a contribution of each of the claimed inventions over the prior art. The Examiner asserts that U.S. Patent Publication No. 2002/053519 relates to an array comprising all possible 10mers; therefore, the sequence of claim 1 is allegedly anticipated since claim 1 does not recite a size limit to its sequence. Applicants respectfully disagree.

Applicants argue that claim 1 relates to a ssDNA molecule having a sequence **according to Figure 1** or a ssDNA sequence that is **at least 90% identical** to that ssDNA molecule. In other words, the size of the sequence is limited, as the size is at least 90% of the length of the sequence according to Figure 1. As the Examiner noted, the sequences described in U.S. Patent Publication No. 2002/053519 only relates to 10mers. Therefore, sequences that are at least 90% identical to the ssDNA molecule are not 10mers, and thereby are not described in the cited reference. Further, a sequence according to Figure 1 has not been previously disclosed. Consequently, the technical feature of Groups I-CCVVIV indeed contributes over the prior art.

Applicants also assert that search and examination of the species of Myxobacteria and mycosis would not constitute an undue burden to the Examiner. Applicant points to MPEP Section 803 which states that a requirement for election is inappropriate when the generic claim includes sufficiently few species that a search and examination of all the species would not impose a serious burden on the examiner. For the present application, the number of species of cells and pathogenic infections to be searched is low. Thus, Applicant respectfully requests that the Examiner withdrawal the election of species, or at least permit more than one cell or pathogenic infection to be examined.

Enforcing the present restriction requirement and election of species would result in inefficiencies and unnecessary expenditures by both the Applicants and the PTO, as well as extreme prejudice to Applicants (particularly in view of GATT, a shortened patent term may

result in any divisional applications filed). Restriction has not been shown to be proper, especially since the requisite showing that the technical feature shared by the claims does not define a contribution over prior art has not been made in the Office Action. Further, the search and examination of at least more than one cell or pathogenic infection can be made without undue burden on the Examiner. All of the preceding, therefore, mitigate against restriction.

In view of the above, reconsideration and withdrawal of the Requirement for Restriction and election of species are requested, and an early action on the merits earnestly solicited.

Respectfully submitted,

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